

THE MATH AROUND A FRESH MULTIYEAR HIGH FOR THE SP500

We think its appropriate to really consider the implications of this fresh multiyear high recently registered for the SP500. **The bottom line to recognize is that when the SPX breaks out to a two year high for the first time in 6 months - like it just did on August 24th - returns are extraordinarily robust. Gains average almost +14% one year out. Of the 24 signals registered since 1927, all 24 produced positive returns, an astounding phenomenon from our perspective.** Its important to recognize the significance of path dependence when considering an objectively robust trend following signal like this recent signal. With that in mind we attempted to consider "**Where's the Stop?**".

A few points to make here:

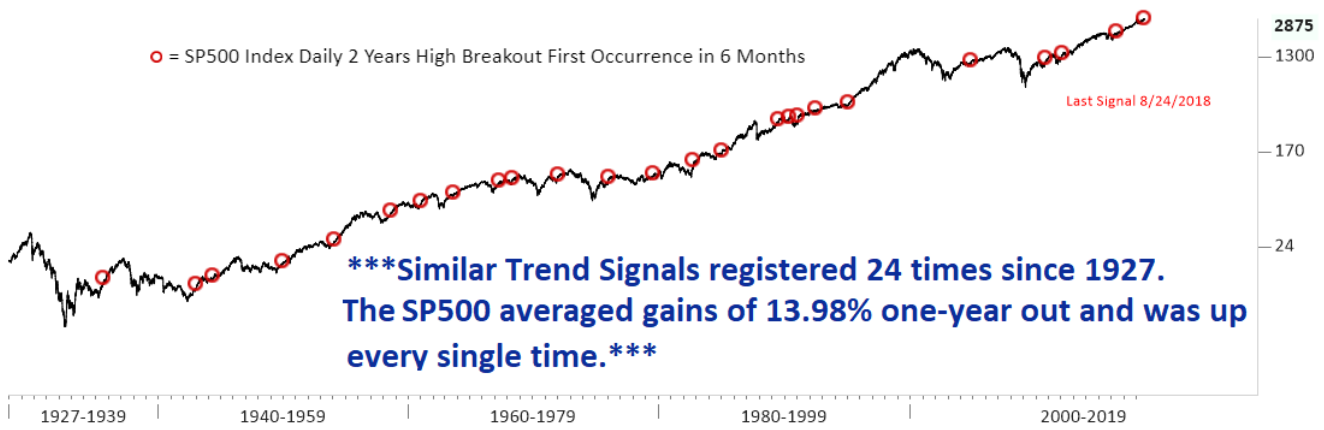
- A trend following signal that has successfully anticipated gains that average +14% one year out and has been 24 for 24 over the entire history of the data set deserves to be respected and not rejected out of hand. (*The base case needs to be Bullish.*)
- The worst drawdown of similar signals for the first few months equalled -6.96%. We suspect that is a fair measure of the real near term risk. (*Bruised but not Broken*)
- The highest returns measured for the first few months equalled +10.17%. (*Melt up*)

What if this is indeed a **False Breakout**?

- **A decline of -7% or more would clearly indicate a False Breakout** - as it would exceed the worst outcome of the historical experience which has robustly indicated SPX strength over the next 12 months.
- A decline of -7% would trigger what has been a reliable cautionary signal for us - namely a break of the one year moving average - which comes in at 2685 at the moment.
- A decline of -7% would also represent a decisive break of the uptrend established in February of 2016.

We suspect this breakout will not be false, but remain cognizant of the many risks this market is balancing. **We expect the SP500 to be +14% higher in 12 months - which corresponds to 3275. A break of 2685 will likely suggest a false break out and the need to consider a defensive stop.** Please scroll down to see the charts and studies that underly our expectations below, and let us know if you'd like to schedule a time to speak.

Fresh Multiyear High Registered for the SPX



SPX Daily 504 Day High Channel Breakout First Occurrence in 6 Months

SPX forward returns after 25 events 12/30/1927 - 8/24/2018

Event Dates	1Wk	1Mo	3Mo	6Mo	1Yr
09/10/1935	-1.18%	-2.95%	10.79%	21.92%	37.35%
02/01/1943	-0.19%	4.56%	12.74%	11.41%	12.17%
06/14/1944	2.21%	4.50%	-1.90%	3.79%	19.19%
01/09/1950	-2.11%	0.88%	3.92%	1.41%	24.06%
03/11/1954	0.15%	3.33%	6.18%	15.14%	36.57%
09/16/1958	0.43%	2.49%	8.55%	14.16%	14.93%
01/27/1961	1.60%	3.59%	6.65%	9.01%	11.32%
09/03/1963	0.45%	-0.50%	1.57%	7.43%	13.28%
05/04/1967	-0.60%	-6.24%	1.42%	-1.71%	4.86%
05/01/1968	0.96%	0.72%	0.57%	10.36%	2.50%
02/04/1972	0.21%	3.82%	1.69%	5.31%	8.39%
01/29/1976	0.28%	-0.09%	2.02%	2.82%	1.68%
08/13/1979	1.31%	0.37%	-5.50%	9.03%	16.16%
11/03/1982	-1.20%	-2.93%	0.25%	14.31%	14.54%
01/21/1985	1.24%	3.40%	3.12%	10.91%	18.43%
07/26/1989	1.86%	3.98%	1.67%	-2.30%	5.63%
05/29/1990	1.66%	-1.53%	-10.87%	-12.24%	5.90%
02/13/1991	-1.10%	1.24%	-0.12%	5.66%	13.04%
07/29/1992	-0.01%	-2.06%	-0.89%	3.76%	5.91%
02/14/1995	0.52%	2.67%	9.46%	15.75%	36.88%
11/04/2004	1.02%	2.46%	3.56%	0.83%	5.02%
11/04/2010	-0.62%	0.17%	7.36%	9.76%	3.28%
02/24/2012	0.28%	3.72%	-3.30%	2.66%	11.00%
07/11/2016	1.39%	2.09%	0.78%	6.16%	13.49%
08/24/2018					
Avg after Signals	0.36%	1.15%	2.49%	6.89%	13.98%
Average All Periods	0.15%	0.62%	1.88%	3.73%	7.70%
T-Statistic	0.94	0.94	0.56	2.14	2.92
# Events Up/Down	16 / 8	17 / 7	18 / 6	21 / 3	24 / 0
Significance	82%	82%	71%	98%	100%

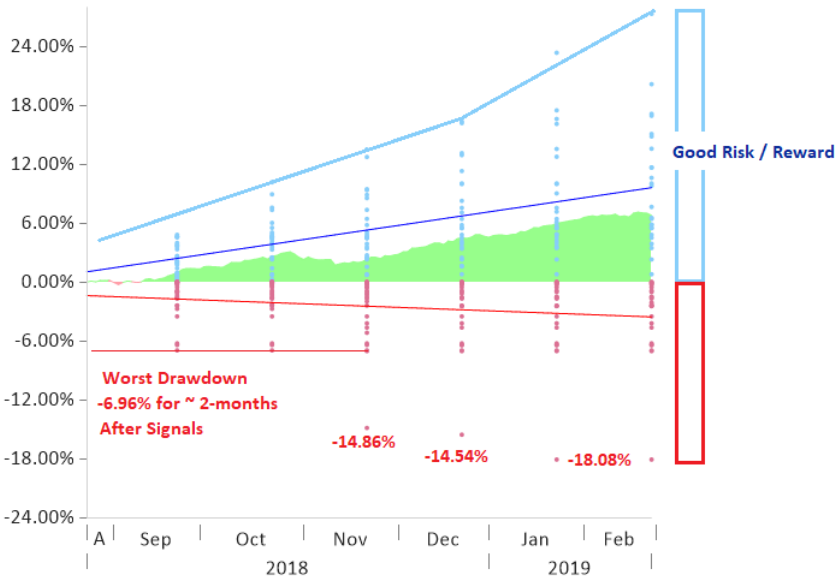


Daily 12/30/1927 - 8/24/2018

Data Source: Bloomberg 8/27/2018 7:46

A trend following signal that has successfully anticipated gains that average +14% one year out and has been 24 for 24 over the entire history of the data set deserves to be respected and not rejected out of hand. *(The base case needs to be Bullish.)*

SPX Risk Profile for 6-months Forward from New 2-year High Signals (first time in 6-months)



Summary Statistics (SPX Forward Returns)

Stats	1Wk	1Mo	3Mo	6Mo	1Yr
Avg after Signals	0.36%	1.15%	2.49%	6.89%	13.98%
Average All Periods	0.15%	0.62%	1.88%	3.75%	7.70%
T-Statistic	0.94	0.94	0.56	2.14	2.92
# Events Up/Down	16 / 8	17 / 7	18 / 6	21 / 3	24 / 0
Significance	82%	82%	71%	98%	100%

Return Since 8/24/2018: 0.79%

- COMPOSITE RETURN ALL SIGNALS
- RETURN SINCE SIGNAL
- LINEAR REGRESSION POSITIVE EXCURSIONS
- LINEAR REGRESSION NEGATIVE EXCURSIONS
- + MAXIMUM EXCURSIONS FROM SIGNAL FOR PERIOD
- + MINIMUM EXCURSION FROM SIGNAL FOR PERIOD



Data Source: Bloomberg 08/29/2018 06:35

- The worst drawdown of similar signals for the first few months equalled -6.96%. We suspect that is a fair measure of the real near term risk. (*Bruised but not Broken*)
- The highest returns measured for the first few months equalled +10.17%. (*Melt up*)

SPX New 2 Year High First Time in 6 Months
SPX forward returns after 25 events 12/30/1927 - 8/28/2018

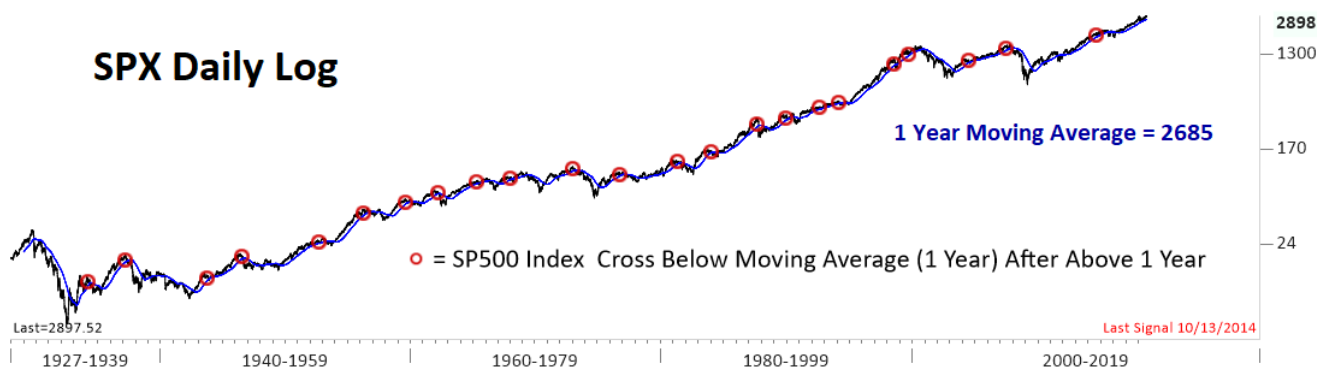
Event Dates	1Mo	MaxUp	MaxDown	2Mo	MaxUp	MaxDown	3Mo	MaxUp	MaxDown	4Mo	MaxUp	MaxDown	5Mo	MaxUp	MaxDown	6Mo	MaxUp	MaxDown
09/10/1935	-2.95%	0.51%	-6.41%	8.94%	8.94%	-6.41%	10.79%	13.49%	-6.41%	15.68%	16.19%	-6.41%	23.36%	23.36%	-6.41%	21.92%	27.32%	-6.41%
02/01/1943	4.56%	4.56%	-0.86%	9.89%	10.17%	-0.86%	12.74%	12.74%	-0.86%	16.35%	16.35%	-0.86%	17.40%	17.49%	-0.86%	11.41%	20.15%	-0.86%
06/14/1944	4.50%	4.82%	0.00%	1.50%	4.82%	-0.39%	-1.90%	4.82%	-1.97%	2.84%	4.82%	-2.45%	0.39%	4.82%	-2.45%	3.79%	4.82%	-2.45%
01/09/1950	0.88%	1.41%	-2.40%	0.06%	1.41%	-2.40%	3.92%	4.51%	-2.40%	7.08%	7.08%	-2.40%	12.76%	12.76%	-2.40%	1.41%	13.58%	-2.40%
03/11/1954	3.33%	3.33%	-1.01%	6.74%	7.34%	-1.01%	6.18%	9.37%	-1.01%	12.85%	12.93%	-1.01%	13.79%	16.11%	-1.01%	15.14%	16.94%	-1.01%
09/16/1958	2.49%	4.60%	-0.55%	7.58%	7.58%	-0.55%	8.55%	8.55%	-0.55%	12.83%	13.13%	-0.55%	10.01%	13.56%	-0.55%	14.16%	14.83%	-0.55%
02/27/1961	3.59%	3.59%	-1.16%	6.03%	6.03%	-1.16%	6.65%	8.88%	-1.16%	8.69%	10.04%	-1.16%	5.36%	10.04%	-1.16%	9.01%	10.04%	-1.16%
09/03/1963	-0.50%	0.88%	-1.32%	1.86%	2.50%	-1.32%	1.57%	2.50%	-1.32%	4.14%	4.14%	-2.20%	5.81%	6.12%	-4.20%	7.43%	7.65%	-4.20%
05/04/1967	-6.24%	0.28%	-6.24%	-3.14%	0.28%	-6.24%	1.42%	1.55%	-6.24%	-0.68%	1.60%	-6.24%	2.47%	3.47%	-6.24%	-1.71%	3.47%	-6.24%
05/01/1968	0.72%	0.96%	-1.55%	4.05%	4.05%	-1.55%	5.7%	4.51%	-1.55%	3.70%	4.51%	-1.55%	6.36%	7.17%	-1.55%	10.36%	10.62%	-1.55%
02/04/1972	3.82%	3.82%	-0.31%	4.35%	4.35%	-0.31%	1.69%	5.07%	-0.31%	3.19%	5.53%	-0.31%	3.99%	5.53%	-0.31%	5.31%	5.53%	-0.31%
01/29/1976	-0.09%	1.99%	-1.06%	1.90%	3.31%	-1.19%	2.02%	3.40%	-1.19%	0.07%	3.40%	-1.19%	3.75%	4.17%	-1.48%	2.82%	5.83%	-1.48%
08/13/1979	0.37%	1.77%	-0.95%	-2.21%	3.58%	-2.21%	-5.50%	3.58%	-7.03%	0.07%	3.58%	-7.03%	2.33%	3.58%	-7.03%	9.03%	9.80%	-7.03%
11/03/1982	-2.93%	0.10%	-6.96%	-1.06%	0.10%	-6.96%	0.25%	2.74%	-6.96%	7.56%	7.56%	-6.96%	6.31%	7.56%	-6.96%	14.31%	15.08%	-6.96%
01/21/1985	3.40%	4.63%	0.00%	2.35%	4.63%	0.00%	3.12%	4.63%	0.00%	8.22%	8.27%	0.00%	6.56%	9.03%	0.00%	10.91%	11.65%	0.00%
07/26/1989	3.98%	3.98%	0.00%	1.83%	4.64%	0.00%	1.67%	6.43%	-1.31%	1.14%	6.43%	-1.61%	2.77%	6.43%	-1.61%	-2.30%	6.43%	-2.30%
05/29/1990	-1.53%	1.87%	-2.38%	-2.00%	2.30%	-2.38%	-10.87%	2.30%	-14.86%	-15.41%	2.30%	-15.54%	-14.00%	2.30%	-18.08%	-12.24%	2.30%	-18.08%
02/13/1991	1.24%	2.09%	-1.68%	5.04%	5.04%	-1.68%	-0.12%	5.81%	-1.68%	3.60%	5.81%	-1.68%	3.39%	5.81%	-1.68%	5.66%	5.81%	-1.68%
07/29/1992	-2.06%	0.68%	-2.73%	-1.33%	0.72%	-2.73%	-0.80%	0.72%	-4.63%	1.65%	1.65%	-4.63%	4.01%	4.51%	-4.63%	3.76%	4.51%	-4.63%
02/14/1995	2.67%	2.67%	-0.12%	4.89%	5.53%	-0.12%	9.46%	9.46%	-0.12%	11.31%	11.31%	-0.12%	16.61%	16.61%	-0.12%	15.75%	17.13%	-0.12%
11/04/2004	2.46%	2.56%	0.00%	1.90%	4.47%	0.00%	3.64%	4.47%	0.00%	4.97%	5.48%	0.00%	2.54%	5.48%	0.00%	0.83%	5.48%	-2.08%
11/04/2010	0.17%	0.39%	-3.50%	4.55%	4.55%	-3.50%	7.36%	7.36%	-3.50%	8.25%	9.99%	-3.50%	9.38%	9.99%	-3.50%	9.76%	11.67%	-3.50%
02/24/2012	3.72%	3.72%	-1.64%	1.83%	3.90%	-1.64%	-3.30%	3.90%	-5.16%	-3.81%	3.90%	-6.42%	-2.04%	3.90%	-6.42%	2.66%	3.90%	-6.42%
07/11/2016	2.09%	2.14%	0.00%	2.07%	2.48%	0.00%	0.78%	2.48%	-0.53%	-0.26%	2.48%	-2.43%	4.88%	4.88%	-2.43%	6.16%	6.54%	-2.43%
08/24/2018	0.79%	0.79%	0.00%	0.79%	0.00%	0.00%	0.79%	0.00%	0.00%	0.79%	0.00%	0.00%	0.79%	0.00%	0.00%	0.79%	0.00%	0.00%
Median	1.66%	2.09%	-1.01%	1.98%	4.35%	-1.19%	1.68%	4.51%	-1.55%	3.92%	5.53%	-1.68%	5.12%	6.12%	-1.68%	6.80%	7.65%	-2.30%
Avg after Signals	1.15%	2.33%	-1.67%	2.82%	4.14%	-1.74%	2.49%	5.36%	-2.91%	4.75%	6.77%	-3.09%	6.17%	8.22%	-3.20%	6.89%	9.68%	-3.31%
T-Statistic	0.94			2.18			0.56			1.61			2.05			2.14		
Max Excursion Up Average	2.39%			4.28%			5.55%			7.02%			8.53%			10.05%		
Max Excursion Down Average	-1.74%			-1.82%			-3.03%			-3.22%			-3.34%			-3.45%		
# Events Up/Down	17 / 7			19 / 5			18 / 6			20 / 4			22 / 2			21 / 3		
Significance	82%			98%			71%			94%			97%			98%		
P-Value	0.18			0.02			0.29			0.06			0.03			0.02		
Max Up																		
Max Down																		

Historically the Worst Drawdown for the First 2-months After Signal Was -6.96%

- A decline of -7% or more would clearly indicate a False Breakout - as it would exceed the worst outcome of the historical experience which has robustly indicated SPX strength over the next 12 months.
- A decline of -7% would trigger what has been a reliable cautionary signal for us - namely a break of the one year moving average - which comes in at 2685 at the moment.

Where's the Stop "IF" This is a False Breakout

SPX Daily Log



SPX Daily Cross Below 252 Moving Average After Above 1 Year

SPX forward returns after 23 events 12/30/1927 - 8/28/2018

Event Dates	Days Above	1Mo	3Mo	6Mo	1Yr	2Yr
05/02/1934	262	-8.49%	-12.68%	-14.05%	-8.49%	35.80%
04/26/1937	505	0.56%	5.57%	-25.74%	-38.37%	-32.80%
11/15/1943	284	1.69%	4.36%	6.67%	14.40%	53.51%
08/22/1946	576	-17.94%	-19.53%	-11.90%	-13.27%	-8.26%
10/16/1952	562	5.23%	9.33%	2.30%	1.05%	34.55%
05/28/1956	608	6.73%	8.07%	1.84%	6.83%	-0.57%
09/21/1959	337	2.51%	7.18%	0.04%	-2.28%	21.20%
04/12/1962	338	-6.81%	-14.59%	-15.74%	2.04%	18.28%
06/09/1965	621	0.79%	4.26%	7.34%	-0.13%	7.48%
01/31/1968	262	-4.68%	6.96%	6.98%	7.38%	-4.75%
02/27/1973	301	0.65%	-3.06%	-7.65%	-13.44%	-28.29%
11/08/1976	430	4.50%	2.30%	-0.42%	-7.34%	-4.43%
07/01/1981	286	0.89%	-10.47%	-5.76%	-15.54%	27.67%
02/03/1984	366	-2.90%	-1.12%	0.89%	11.01%	31.61%
10/16/1987	810	-12.71%	-10.90%	-8.31%	-2.55%	18.01%
01/25/1990	352	0.79%	2.10%	9.15%	2.67%	27.26%
10/07/1992	431	3.49%	6.55%	9.52%	13.97%	12.19%
03/29/1994	369	-0.35%	-1.07%	2.73%	11.19%	43.41%
08/28/1998	923	2.13%	16.08%	19.31%	28.90%	47.41%
10/15/1999	252	11.78%	17.46%	8.75%	10.16%	-13.94%
07/26/2004	313	1.12%	1.08%	7.35%	13.37%	17.05%
08/14/2007	266	4.02%	0.89%	-4.16%	-9.86%	-29.01%
10/13/2014	478	8.80%	7.91%	12.37%	6.88%	14.11%
Avg after Signals		0.08%	1.16%	0.07%	0.81%	12.50%
Average All Periods		0.62%	1.88%	3.73%	7.70%	15.25%
T-Statistic		-0.39	-0.37	-1.67	-2.38	-0.54
# Events Up/Down		16 / 7	15 / 8	14 / 9	13 / 10	15 / 8
Significance		-65%	-64%	-95%	-99%	-70%



Daily 12/30/1927 - 8/28/2018

Data Source: Bloomberg 8/29/2018 6:04

- A decline of -7% would also represent a decisive break of the uptrend established in February of 2016.

Where's the Stop "IF" This is a False Breakout

< 2685

- 1 Year Moving Average
- Uptrend from 2016 Lows

SPX Daily Log



Nautilus Capital, LLC

Terms of Use

Copyright Statement

The works of authorship contained in the Service, including but not limited to all charts, data, data tables, graphic representations and text are owned, except as otherwise expressly stated, by Nautilus Capital, LLC or one of our data providers, and may not be copied, reproduced, transmitted, displayed, performed, distributed, rented, sublicensed, altered, stored for subsequent use or otherwise used in whole or in part in any manner without the prior written consent of Nautilus Capital, LLC in each instance.

Important Disclosure

The information provided in this material has been prepared by Nautilus Capital, LLC ("Nautilus") for institutional investors and is intended strictly for research and informational purposes only. This material is not intended for natural person individual clients and no claim or representation is made thereto. All information contained herein is considered current as of the date listed on the material. This material has been prepared solely by Nautilus and is provided without warranty of any kind, either expressed or implied. All information, including that used to compile charts, is obtained from sources believed to be reliable, but Nautilus does not guarantee their reliability. The information contained herein has not been independently verified. When evaluating the results of any prior Nautilus trading models or recommendations, one should also consider that Nautilus may substantially modify the methods it uses to evaluate investment decisions. Nautilus uses various methods to evaluate investments which may, at times, produce contradictory recommendations with respect to the same securities. Pricing information listed in this material is indicative and is not intended as an offer or solicitation for the purchase or sale of any derivative or other financial instrument. The opinions expressed herein are subject to change without notice, and you should always obtain current information and perform due diligence before making any investment decision.

Nautilus, its owners, and its employees may buy or sell for their personal accounts, investment products identical to those analyzed and/or recommended in this material. Nautilus has developed reasonably designed procedures to supervise and monitor the personal trading of its employees. Different types of investments involve varying degrees of risk, and there can be no assurance that the future performance of any specific investment, investment strategy, or product made reference to directly or indirectly in this research material, will be profitable, equal any corresponding indicated performance level(s), or be suitable for every investor. Subsequently, investors must make their own investment decisions based upon their specific investment objectives, financial situation, and utilizing their own financial advisors as they deem necessary. Nautilus, its affiliates, employees, and any third party data provider, shall not have any liability for any loss sustained by anyone who has relied on the information contained in any Nautilus publication.

Hypothetical models developed by Nautilus are constructed to serve as a general directional forecasting guide for the corresponding underlying financial instruments. The hypothetical performance results of the models have inherent limitations. No representation is being made that any investment will or is likely to achieve profits or losses similar to those shown herein. In fact, there are frequently sharp differences between hypothetical performance results and the actual results achieved by a particular investment or trading program. One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or to adhere to a particular trading program in spite of losses are material points which can adversely affect actual results. Because hypothetical results do not involve actual trading, the results do not reflect the deduction of transaction and custodial charges or the deduction of management fees, the incurrence of which will have a negative effect on actual performance. In addition, for reasons including variances in actual holdings; variances in fees and expenses charged; market fluctuation; the date on which investing begins; and any contributions or withdrawals; the performance for a specific investor may vary substantially from the information presented in this material. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the preparation of hypothetical performance results and all of which can adversely affect actual trading results.

Social Media

Nautilus Capital is not affiliated with Twitter and has no control over how it and other third-party sites use the information you share. If you participate in Twitter or other social networking sites, you should be knowledgeable about how account settings work and be aware of how user information can be displayed and used throughout the site.

Comments and opinions posted by social media users are the responsibility of the person who posted them. Nautilus does not guarantee the accuracy of content posted by others, and such content does not represent the views of Nautilus. Whenever a Nautilus social media channel follows another user, "re-tweets" third-party content, or provides hyperlinks to third-party content, this information is intended to provide additional perspective and should not be construed as an endorsement of any services, products, guidance, individuals, or points of view outside of Nautilus.

We reserve the right to moderate and or remove comments that we deem offensive, inappropriate, serve as promotional material or for any other reason.

Privacy Policy

We do not disclose any nonpublic personal information about our clients (both present and past) to anyone, except as permitted by law. As the law permits, we may share personal information about you with our partners or affiliates and other third parties who provide services for your accounts. This information includes, but is not limited to information provided by you through forms, applications, and oral, written or email communication; and information derived from your transactions with us such as, but not limited to: amount of payment or method of payment for our services. We do not provide or sell our mailing lists to any third parties, except unless it is in connection with the provisions of our services. When any information is provided to third parties, it is only done so on the condition that they keep your information confidential. If you believe we have shared your information inappropriately, please contact us. We do not share information about any of our clients, readers, or subscribers with any third party unless we have the consent of that person. We will only divulge information as necessary to comply with state and federal laws and regulations. Whenever possible, a client may choose to not disclose information.

